

# AIR-BAND TRANSCEIVERS



**SPIRIT Series**  
**FTA-720**



**Pilot Series**  
**FTA-310**



**Pro Series**  
**FTA-230**





## SPIRIT Series FTA-720

- BNC Antenna Connector
- Air Band (108 MHz - 137 MHz) including NAV (108 MHz - 118 MHz) AM 5 W P.E.P. (1.5 W Carrier)
- Wide-Band FM Broadcast Receive 88 MHz - 108 MHz
- VOR Navigation Display
- US BRS Band Reception with CTCSS/DCS Decoder
- NOAA Weather Channel Receive (U.S.A. Only)
- NOAA Weather Alert (U.S.A. Only)
- Rugged Magnesium Die-Cast Construction
- Submersible IPX7 (3 ft. 30 minutes)
- Long-Life Lithium-Ion Battery Included
- RX Battery Saver Mode
- 160 Memories with Pre-programmed BOOK Memories
- Multi-Color Strobe LED for Status Indication and Emergency Light in Dark
- Back-lit Keypad and Display with Dimmer
- One-Touch Emergency Frequency Access (121.5 MHz)

### Air Band Operation, VOR Navigation, FM Broadcast and US BRS Band Reception Included

The multiple capabilities of the FTA-720 yield unmatched operating and monitoring opportunities for the owner on the go! Besides full voice transmit and receive operation on the Air Band, the FTA-720 also provides extensive VOR and CDI Navigation tools, along with convenient reception of the FM Broadcast band during down time. And you get the additional monitoring excitement afforded by receiver coverage of the Business Radio Service (BRS) band, a YAESU exclusive!

### Rugged Magnesium Die-Cast Construction

The unmatched ruggedness of the FTA-720 is coupled with ultra-light weight, thanks to the die-cast magnesium case and chassis construction. Rubber bumpers on the bottom corners of the case protect it against damage from every-day bumps and scrapes.

### Supplied Rechargeable Lithium-Ion Battery

The FTA-720 is supplied with a super-long-life 7.4 V, Typ. 1500 mAh Lithium-Ion Battery Pack (FNB-80L), providing many hours of operation and reliable charging without the "memory" effects that can plague other battery types. With the optional CD-55A Charging Stand and PA-48B/C/U AC Adapter, the FNB-80L may be charged in as little as 3 hours, so you'll quickly be ready for more operating action!

### Dot Matrix Display

The FTA-720's 132 x 64 dot matrix display provides clear, easy to read indication of frequency and Navigation data, the FTA-720's display includes an unparalleled array of graphical and pictorial tools to simplify operation in flight.

### VOR NAVIGATION DISPLAY (NAV BAND 108.000 - 117.975 MHz)



### SUPPLIED ACCESSORIES:

• Ni-MH Battery Pack (7.4 V, Typ. 1500 mAh FNB-80L) • Battery Charger PA-48B/C/U • BNC Helical Antenna YHA-74 • Headset Cable CT-95

### ACCESSORIES & AVAILABLE OPTIONS

 MH-44a Speaker Microphone	 CD-55A Desktop Rapid Charger	 PA-48B/C/U Battery Charger
 FBA-25A 6 x AA Alkaline Cell Battery Case (batteries not supplied)	 E-DC-5B DC Cable with Noise Filter	 E-DC-6 DC Cable: plug and wire only

\* "B" for 120VAC / "C" for 220-240 VAC / "U" for 220-240 VAC w/AC Plug.



## Pilot Series FTA-310

- BNC Antenna Connector
- 5 Watts TX Output Power (at 7.2 V, 5 W P.E.P. typ., 1.5 W carrier)
- Loud Audio (800 mW)
- VOR Navigation Display
- 250 Memory Channels (Incl. Pre-Programmed Book Memory Channels)
- Receiver Audio Pitch Control
- 8 Character Alpha Numeric Display
- Back-lit Keypad and Display with Dimmer
- One Touch Emergency Frequency Access (121.5 MHz)
- Rugged and Submersible Construction IPX7 (3 feet / 1 m for 30 minutes)
- NOAA Weather Channel Receive (U.S.A. Only)
- NOAA Weather Alert (U.S.A. Only)
- RX Battery Saver
- VOX Operation (Voice-activated Transmit/Receive switching)
- Supplied with 12 V DC Charging Sleeve for in-flight operation
- PC Programmable

### ULTRA RUGGED, SUBMERSIBLE CASE CONSTRUCTION

The FTA-310 is built inside a rugged Aluminum case, carefully sealed to protect against water ingress. Built to survive immersion in water for up to 30 minutes at a depth of three feet, the FTA-310 can keep you communicating even if it gets wet if you have to ditch!

### RECEIVER AUDIO PITCH CONTROL

For improved reception under difficult conditions, the receiver's audio frequency response may be quickly adjusted by the user, to enhance either the high-frequency or low-frequency components, depending on the noise and/or interference encountered. A YAESU exclusive!

### ONE TOUCH SQUELCH CONTROL

Breaking the squelch threshold has never been easier. Press the monitor (MON) button for two seconds to open the FTA-310's squelch continuously. Press MON again to restore the original squelch settings. This is TRUE one-handed operation, without the need to fumble around with tightly spaced concentric knobs.

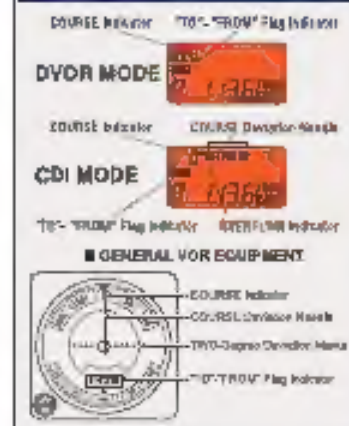
### NOAA WEATHER CHANNELS (U.S.A. Only)

The FTA-310 can receive all 10 NOAA weather broadcast frequencies. The Automatic Active Weather Channel Locator (a YAESU exclusive) automatically scans for active NOAA weather stations in your area when WX band is selected.

### VERSATILE SCANNING FEATURES

The FTA-310's versatile scanning capability allows you to monitor a number of different channels efficiently. The FTA-310 will scan the COM band, main or Book memories, or the Weather band (U.S.A. Only), and also includes provision for Dual Watch and Priority Revert Dual Watch that always ensures transmission on a "Priority" channel.

### VOR NAVIGATION DISPLAY (NAV BAND 108.000 - 117.975 MHz)



### SUPPLIED ACCESSORIES:

• Ni-MH Battery Pack (7.2V, 1400mAh FNB-63) • Battery Charger PA-48B/C/U • Charger Cradle CD-28 • DC Sleeve Charger CD-54 • BNC Helical Antenna YHA-73 • Quick Draw Belt Clip CLP-14 • Headset Cable CT-95 • Alkaline Battery Case FBA-25A

### ACCESSORIES & AVAILABLE OPTIONS

 MH-44a Speaker Microphone	 VAC-372B/C/U Desktop Rapid Charger	 CD-58 DC Sleeve Charger
 FBA-25A 6 x AA Alkaline Cell Battery Case (batteries not supplied)	 E-DC-5B DC Adapter with Noise Filter	 E-DC-6 DC Cable: plug and wire only

\* "B" for 120VAC / "C" for 220-240 VAC / "U" for 220-240 VAC w/AC Plug.



## Pro Series FTA-230

- BNC Antenna Connector
- 5 Watts TX Output Power (at 7.2 V, 5 W P.E.P. typ., 1.5 W carrier)
- Loud Audio (700 mW)
- 250 Memory Channels (Incl. Pre-Programmed Book Memory Channels)
- Last Channel Recall (Flip Flop) Function
- 8 Character Alpha Numeric Display
- Back-lit Keypad and Display with Dimmer
- One Touch Emergency Frequency Access (121.5 MHz)
- Rugged and Submersible Construction IPX7 (3 feet / 1 m for 30 minutes)
- NOAA Weather Channel Receive (U.S.A. Only)
- NOAA Weather Alert (U.S.A. Only)
- RX Battery Saver
- VOX Operation (Voice-activated Transmit/Receive switching)
- Supplied with 12 V DC Charging Sleeve for in-flight operation
- PC Programmable

### Rugged and Submersible Construction IPX7 (3 feet / 1 m for 30 minutes)

The FTA-230 is built inside a rugged Aluminum case, carefully sealed to protect against water ingress. Built to survive immersion in water for up to 30 minutes at a depth of three feet, FTA-230 can keep you communicating even if it gets wet due to severe weather or unforeseen water landings.

### Back-lit Keypad and Display with Dimmer

For quick access to operating frequencies, simply enter the frequency information directly from the 17 button keypad, then press the "Push To Talk" (PTT) button to transmit. There is no need to store frequencies in memory before operating.

### NOAA Weather Channel Receive (U.S.A. Only)

The FTA-230 can receive all 10 NOAA weather broadcast frequencies. The Automatic Active Weather Channel Locator (a YAESU exclusive) automatically scans for active NOAA weather stations in your area when WX band is selected.

### NOAA Weather Alert (U.S.A. Only)

The FTA-230 includes a special feature that sounds an alarm when the special "Severe Weather" alert tone is received from a Weather Broadcast station. This warns you of potentially hazardous flying conditions.

### One Touch Emergency Frequency (121.5 MHz) Access

For lightning-fast access to the 121.5 MHz Emergency Frequency, a dedicated key on the front panel assures you of no delays in summoning help in an emergency.

### 3-WAY DISPLAY TITLING AND BACK-LIT DISPLAY

Easy to use, versatile access to channel information is critical to successful transceiver operation. Only YAESU Airband transceivers offer you one-keystroke access to three different methods of displaying memory channel information: Frequency, Channel Number, or Alpha-Numeric title.

### SUPPLIED ACCESSORIES:

• Ni-MH Battery Pack (7.2V, 1400mAh FNB-63) • Battery Charger PA-48B/C/U • Charger Cradle CD-32 • DC Sleeve Charger CD-59 • BNC Helical Antenna YHA-73 • Headset Cable CT-95 • Alkaline Battery Case FBA-25A

### ACCESSORIES & AVAILABLE OPTIONS

 MH-44a Speaker Microphone	 CD-47 Desktop Rapid Charger	 CD-59 DC Sleeve Charger
 FBA-25A 6 x AA Alkaline Cell Battery Case (batteries not supplied)	 E-DC-5B DC Cable with Noise Filter	 E-DC-6 DC Cable: plug and wire only

\* "B" for 120VAC / "C" for 220-240 VAC / "U" for 220-240 VAC w/AC Plug.



Specifications	<b>SPiRiT Series FTA-720</b>	<b>PiLot Series FTA-310</b>	<b>Pro Series FTA-230</b>
<b>General</b>			
Frequency range	TX: 118.000 - 136.975 MHz (COM Band) RX: 44.000 - 108.000 MHz (FM BC Band) 108.000 - 117.975 MHz (NAV Band) 118.000 - 136.975 MHz (COM Band) 161.5125 - 138.400 MHz (BSS Channels) Weather Channels (WX-01 - WX-10: USA version only)	TX: 118.000 - 136.975 MHz RX: 108.000 - 117.975 MHz (NAV Band) 118.000 - 136.975 MHz (COM Band) Weather Channels (WX-01 - WX-10: USA version only)	TX: 118.000 - 136.975 MHz RX: 108.000 - 136.975 MHz Weather Channels (WX-01 - WX-10: USA version only)
Channel Spacing	5/10/12.5/15/20/25/50/100 kHz	25 kHz/9.33 kHz (9.33 kHz RX only)	25 kHz / 9.33 kHz (RX only)
Emission Type	TX: AM RX: AM & FM	TX: AM RX: AM & FM (FM for receiving the Weather Channels, USA version only)	TX: AM RX: AM & FM (FM for receiving the Weather Channels, USA version only)
Supply Voltage	4.5 - 15.0 VDC	6.0-15.0 V DC	6.0 - 15.0 V DC
Current Consumption	250 $\mu$ A (Power off) 35 mA (Battery saver on, saver ratio 1:5) 60 mA (Squelch on) 160 mA (Receive) 400 mA (Transmit AM: 1.5 W Carrier @ 7.4V) 400 mA (Transmit AM: 0.3 W Carrier @ 4.5V)	20 $\mu$ A (Power off) 20 mA (Battery saver on, saver ratio 1:5) 60 mA (Squelch on) 270 mA (Receive) 0.9 A (Transmit 1.5 W Carrier)	250 $\mu$ A (Power off) 35 mA (Battery saver on, saver ratio 1:5) 60 mA (Squelch on) 200 mA (Receive) 950 mA (Transmit 1.5 W Carrier)
Temperature Range	-22°F to +140°F (-30°C to +60°C)	+14°F to +140°F (-10°C to +60°C)	+14°F to +140°F (-10°C to +60°C)
Antenna Connector	BNC Type	BNC Type	BNC Type
Case Size (WxHxD)	2.36" x 3.78" x 1.12" (60 x 96 x 28.5 mm) w/FNB-B01	2.4" x 4.7" x 1.2" (60 x 120 x 32 mm) w/FNB-B3	2.28" x 4.69" x 1.2" (60 x 104 x 30.5 mm) w/o knob & antenna
Weight (approx.)	9.9 oz. (280 g) with FNB-B01 and antenna	13.7 oz. (390 g) with FNB-B3 and antenna	12.7 oz. (360 g) with FNB-B3, antenna, and belt clip
<b>Receiver</b>			
Circuit Type	Double-conversion Superheterodyne	Double-conversion Superheterodyne	Double-conversion Superheterodyne
IFs	35.4 MHz & 450 kHz (AM/NFM) 45.65 MHz & 10.7 MHz (WFM)	35.4 MHz & 450 kHz	47.25 MHz & 450 kHz
Sensitivity	84-108 MHz: Better than 2 $\mu$ V (for 12 dB SINAD with 1 kHz tone @ 2.5 kHz deviation) 108 MHz-136.975 MHz: Better than 1 $\mu$ V (for 6 dB S/N with 1 kHz tone @ 30 % modulation) 893-911 - 893-921: Better than 0.32 $\mu$ V (for 12 dB S/N with 1 kHz tone @ 3.5 kHz deviation) WX-01 - WX-10: Better than 0.4 $\mu$ V (for 12 dB S/N with 1 kHz tone @ 3.5 kHz deviation)	Better than 0.5 $\mu$ V (for 6 dB S/N with 1 kHz, 30 % modulation)	AM: Better than 0.4 $\mu$ V (for 6 dB S/N with 1 kHz, 30 % modulation) FM: Better than 0.4 $\mu$ V (for 12 dB SINAD)
Selectivity	AM/FM: More than 6 kHz/-6 dB WFM: More than 200 kHz/-6 dB	More than 6 kHz/-6 dB	More than 6 kHz/-6 dB
Adjacent CH. Selectivity	AM/FM: Less than 25 kHz/-60 dB WFM: Less than 300 kHz/-20 dB	Less than 25 kHz/-60 dB	Less than 25 kHz/-60 dB
AF Output (Internal speaker)	0.4 W @ 4 Ohms, 10 % THD @10.8 V	0.6 W @ 16 Ohms, 10 % THD	0.7 W @ 16 Ohms, 10 % THD
<b>Transmitter</b>			
Power Output	5.0 W (PEP), 1.5 W (Carrier Power) @ 7.4 V DC	5.0 W (PEP), 1.5 W (Carrier Power) @ 7.2 V DC	5.0 W (PEP), 1.5 W (Carrier Power) @ 7.2 V DC
Frequency Stability	Better than $\pm$ 2.5 ppm (-22°F to +140°F, -30°C to +60°C)	Better than $\pm$ 10 ppm (+14°F to +140°F, -10°C to +60°C)	Better than $\pm$ 10 ppm (+14°F to +140°F, -10°C to +60°C)
Modulation System	Low Level Amplitude Modulation	Low Level Amplitude Modulation	Low Level Amplitude Modulation
Spurious Emission	> 60 dB below carrier	> 60 dB below carrier	> 60 dB below carrier
Int. Microphone Type	Condenser	Condenser	Condenser
Ext. Mic. Impedance	350 Ohms	350 Ohms	350 Ohms

Specifications are subject to change without notice or obligation.

About this brochure: We have made this brochure as comprehensive and detailed as possible. We reserve the right, however, to make changes at any time in equipment, optional accessories, specifications, model numbers, and availability. Product frequency range may be different in some countries. Some accessories shown herein may not be available in some countries. Some information may have been updated since the time of printing; please check with your Authorized YAESU Dealer for complete details.

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